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#### FRUIT-CULTURE IN SCOTLAND.

APPLE TREES.

WITHIN recent years, so much has been said and written about the immense amount of money paid away every year by Great Britain for foreign fruit-mostly from the United States and Canada—that, at present, statistics on this point would be superfluous. These figures have been used for the purpose of pointing out to cultivators of land-large and small, but especially to small cultivators—that the immense sum of money sent out of this country year by year is paid for Apples which could, to a very large extent, be grown at home. 'Why not plant Apple Trees, and secure part at least of this enormous tribute sent abroad? Are not our cooking-apples every whit as good as the best foreign-grown fruit? Nay, don't our medical men tell us that they are superior to those of foreign growth? Plant trees; grow them skilfully; markets are not far to seek, offering fair prices for good fruit. Seize the opportunity, and do your best to keep British money at home.'

This advice has been repeated till it has at length, to a considerable extent, been taken: year by year, more trees have been planted, till now, perhaps, it is safe to say that, if all the trees in cultivation were bearing fair crops of fruit, no apples for cooking purposes would require to be imported. But growers do not, as a rule, get fair crops every year. Our cold climate is generally made to bear the blame of this deficiency, occurring, as it mostly does, every alternate year. Perhaps the sorts mostly planted by growers are tenderer, and less able to bear the rigours of our climate, especially when these rigours happen to be interjected in the month of May, or sometimes even in June, when the foliage is tender, and does not protect the tenderer blossom. As a rule, the sorts planted are not chosen for hardy vigour, but for the reputation they have gained as abund-

these are deficient in hardy endurance of cold. The sorts mostly planted in large numbers are heavy bearers of large fruit, such as Lord Suffield, Ecklinville Seedling, Stirling Castle, Dummelow's Seedling, Warner's King, Cellini, and New Hawthornden, all of which are general favourites.

What have been the results, in most cases, planting these abundant-bearing sorts? Have the crops of fruit been abundant, rewarding to a fairly adequate extent the expectations and labours of the planters? In giving an answer to this question, it will perhaps be best to give the results of fruit-growing with these very sorts of apples among a small community in the south of Scotland, composed almost entirely of fruit-growers on every sort of scale. This community represents nearly the entire population of a rural village with barely three hundred inhabitants. The village is not more than four miles distant from a large manufacturing town, where a ready market is always to be found for all the fruit our villagers can grow. A garden is attached to every house in the village: of these gardens, thirteen vary in size from one acre to three acres of ground; other thirteen are a quarter of an acre in extent; the remaining gardens are of a fair size; and the householders one and all sell the fruit that remains after their own wants are supplied. Several of the larger growers are trained gardeners; and one is a retired teacher from the north of Scotland. Now, everything does not go on from year to year on these holdings with unvaried results: one holder is more successful in growing apples; another finds his pears are better than his neighbours' most years; a third beats all his neighbours in growing raspberries; while in another case, gooseberries are the paying crop. Naturally enough, one and all of these growers are continually watching their neighbours' crops more or less; and the man who surpasses his neighbours in the quantity and quality of, say, his strawberry ant bearers of good fruit, even when many of crop, is questioned and cross-questioned as to

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what he considers the cause of his success. The reasons given are considered and reconsidered, receive favourable and unfavourable criticism, till, finally, the truth is thrashed out, and the methods practised by the successful grower in any one line are adopted by the

whole fruit-growing community.

Well, in this sifting of evidence and determining of the best fruits and the best methods of growing them, the retired teacher plays the leading part. How, then, do the growers report on the list of favourite apples planted by all and sundry, and given above? The answer in the case of Lord Suffield, the apple first on the list, is: All the trees of this variety have failed since 1887 to make growth to any extent : they have always borne fruit; yet, from the trifling amount of growth, the quantity of fruit is small. Regarding Ecklinville and Stirling Castle, they both canker too badly. Dummelow's Seedling does well for a few years at first; the more it grows, the less it bears. Warner's King, grown by almost everybody for its crops of enormously sized fruit-a single apple frequently weighing one pound-is another sort very much subject to canker. The next sort, Cellini, has been found to be of no use unless grown on a wall. And New Hawthornden is very irregular, some trees being healthy, and bearing fine crops of grand fruit; and other trees of this sort being quite the opposite.

Are there no sorts of apple trees, then, which grow vigorously, are fairly hardy, and produce fair crops year by year? An affirmative answer can be given to this question. There is one sort which possesses these qualifications, and produces annual crops above the average both in quantity and quality. This sort is Small's Admirable, which gives the utmost satisfaction to the village growers of whom an account has been already given. Its foliage is of a distinct type; it is seldom or never affected by mildew-a great drawback in some sorts of apples-and it has one qualification which ought to recommend it highly to amateursit needs no pruning; nay, rather, to put the thing more exactly, it must not be pruned, as pruning does harm only in the case of this apple tree. The fruit is large and nicely shaped, and when cooked, falls to the right extent, and no more. It is hardly an eating-apple; however, its cooking and keeping qualities quite make up for this want. Most of our village growers reckon this their best cooking sort, and find their customers who purchase the fruit ask for it in preference to any other variety. One of the village growers has eight trees of this sort, the crop from which for many years has never fallen below twenty-four stone of good saleable fruit; and last year, which was a bad year for apple trees on the dwarf stock, the eight trees yielded forty stone of fruit, the

of large handsome fruit; and another grower has been so much pleased with this sort, that he has planted twenty-four young trees of it. The almost absolute certainty of this sort

The almost absolute certainty of this sort bearing fruit every year arises from its vigorous health and its lateness in coming into blossom. As a rule, in ordinary years the month of June is in before the Admirable produces its blossom, and by that time the risk of frost is completely past. In autumn, when the fruit is ready for cooking, it is best to pull the biggest fruits first, when the smallest fruits will keep on growing and increasing in size as long as the frost will allow. In this respect it is just the opposite of Lord Suffield, the large fruit on which will grow in size till ripe; but the small fruit never gets large, even when the large fruit is taken from the tree at an early season. Trees of Admirable will succeed with deep planting better than almost any other sort; but as it yields large crops of fruit, it is necessary to give it manure every year. This is best done by the application of bonemeal in the autumn, before the fall of the leaf.

leaf.

With regard to the slow growth and cankered condition of the young trees of Lord Suffield, Ecklinville, Stirling Castle, &c., that have been planted within the last ten years, these might be improved by being lifted and planted in new ground. In new ground, has been said; but on new ground on the surface, or, at the most, at a depth of six inches, the best results in the way of improvement are secured. Before planting, a stake should be driven into the ground at the spot where the tree is to be planted, and the tree should be secured to this stake after the roots have been carefully covered with new soil. In autumn every year, these replanted trees should be treated with bonemeal in the manner recommended for Small's Admirable. If the grower have facilities for storing farmyard manure for such time as would be needed for dissolving it into soil, no better top-dressing can be given. Indeed, for all purposes whatever, dung thus dissolved is immensely superior in the results produced.

If the apple-grower, having attained success in the growth of cooking-apples, feels inclined to attempt to grow eating-fruit, there is no apple which will repay his efforts in a greater degree than Cox's Orange Pippin. This sort is a strong healthy grower; and to check it in this respect, it will be necessary in most cases to lift and replant this sort every three years. The fruit is of the highest quality; but, as a rule, is not fit for use till about New-year time. It has been condemned by very many who have not waited till it was fully ripe before they ate or tried to eat it. It is worth trying by every one who has room for half-a-dozen

trees.

One of the village growers has eight trees of this sort, the crop from which for many years has never fallen below twenty-four stone of good saleable fruit; and last year, which was a bad year for apple trees on the dwarf stock, the eight trees yielded forty stone of fruit, the biggest crop on any one tree being eight stone

heat in summer and autumn. It is fit for use and at its best before the end of December.

And if, after growing these two sorts successfully, the grower begins to think he would like an early apple, a very good sort for children, and those who require a soft apple, is the White Juneating. A better sort than this last, but a hard fruit, is the variety styled Early Harvest, which does best with little or no pruning. With regard to a sort grown by almost every one in the village mentioned above, and named Lady Henniker, abundance of splendid fruit is grown of great size and dessert alike, on a tree of this sort grafted on a crab stock, in a garden not far from the village; while in the village itself, the trees of this sort produce year by year abundance of very large and beautiful blossom, never followed by more than three or four apples at the utmost on any one tree. If Lady Henniker can be got on the crab stock, there is a strong presumption that the most satisfactory results would be attained: it may therefore be recommended to all and sundry intending to plant, but on the crab stock only.

A large number of cows is kept in our village, hence their liquid manure is to be had in abundance. By the use of this in the winter season applied round the roots of the fruit-trees, astonishing results have been achieved by the retired teacher. His trees treated with this liquid manure produce in great abundance apples surpassing, to a surprising degree in size, colour, quantity, and quality, the apples of the same sorts grown by others who make no use of this liquid manure. As this has happened years in succession, the idea is driven home into the heads of other growers that this object-lesson is well worth learning and practising; hence, during last winter, the example set by the teacher has been followed by others to a considerable extent, in the confident hope of the same favourable results. Another good result following the application of liquid manure every year is this: the apple trees so treated produce heavy crops every year, unless, of course, when the blossom is destroyed by frost; whereas, without some such application of manure, the ordinary result is a good crop one year, followed by a poor one the next. Trees liberally treated with this liquid manure cannot be expected to live as long as those grown on a natural system; but when they fail, they are easily and cheaply replaced.

are easily and cheaply replaced.

All through this article, in speaking of apple trees, those grown on a dwarfing stock are meant; this class of trees always produces fruit of much larger size, which can and must be always hand-pulled. Even when blown down by wind, it does not suffer the damage sustained by fruit blown from the swinging branch of a lofty tree. However, in the case of a grass orchard, trees grafted on the crab stock may be grown to considerable advantage, as the crop from a full-grown tree may amount to forty or fifty stone of medium-sized fruit, and the grass saves the falling fruit to a considerable extent from damage. In the case of lofty trees, the crop will be increased fifty per cent. in quantity, and fully doubled in size and quality,

by the liberal use of liquid manure applied in the winter season. Fifty pails may be given, always taking care to keep the manure a yard at the least from the trunk of the tree.

#### THE LAWYER'S SECRET.

By John K. Leys, Author of The Lindsays, &c.

CHAPTER VI.—ROBY CHASE IS LEFT WITHOUT A MASTER.

ONE morning, a few days after Lady Boldon's visit to London, her father, Mr Bruce, was seated in his study enjoying his after-breakfast cigar—a luxury he had allowed himself since Adelaide's marriage—when he was told that Mrs Plowman wished particularly to see him.

'Bother the woman!' exclaimed the Rector under his breath, as he carefully placed his half-smoked cigar on the mantel-piece, that he might resume it when the interview should be over. A second cigar Mr Bruce would have considered a sinful extravagance. Mrs Plowman was the widow of a deceased parish clerk, who eked out her income by letting lodgings; and Mr Lynd had taken up his abode with her. So the Rector's next thought naturally was: 'I hope there's nothing the matter with Lynd.' An uneasy feeling pervaded his mind as the curate's name occurred to him. He had noticed that his assistant's manner, always a little eccentric, had lately been decidedly odd. Mr Lynd would sometimes break off suddenly in his conversation, and without any reason start some quite irrelevant subject. Sometimes he would laugh right out, at nothing, apparently, then suddenly check himself, and blushing painfully, offer some lame excuse for his hilarity. Much as Mr Bruce respected and liked the young clergyman, he feared that he would not be able to keep him long at Woodhurst.

As soon as Mrs Plowman began to disclose the nature of her errand, the Rector's worst suspicions were confirmed. Mr Lynd's mind was going—that was how the widow put it. She dared not have him in her house any longer, and she was at her wits' end to know what to do. He had begun to entertain various delusions about her, the Rector, Lady Boldon, and other people in the parish; and, in short, he was not fit to be trusted alone.

Mr Bruce immediately put on his hat, and set out for Mrs Plowman's, that he might be able to see for himself how matters stood. On his way he met Mr Lynd; and five minutes' conversation was enough to show that the curate's mind was decidedly unstrung. Fortunately, Mr Bruce knew the address of a brother of Mr Lynd's, and he telegraphed to him, begging him to come down to Woodhurst at once and bring a doctor with him.

The Rector had hardly returned home when

The Rector had hardly returned home when a second message came to him—a hurried scrawl from the nurse at Roby Chase. Sir Richard Boldon was dying!

Mr Bruce was shocked at this intelligence; for although he had but little respect for Sir Richard as a man, still, he was Adelaide's

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husband. The Rector hurried to the Chase; but before he could reach the house, his son-

in-law had ceased to breathe.

The news of Sir Richard's death came as a surprise to the people of the neighbourhood; but it was no surprise to those who had watched the invalid's condition from day to day. Although the patient had rallied some days before, the improvement had made no progress; and when a relapse came, he sank rapidly.

Lady Boldon had not yet recovered from the effects of the chill she had received on the night of her return from London. Her cold had developed into a kind of fever; and she had not been able to see her husband since her illness began. The nurse had intended to send for Lady Boldon as soon as she saw that the end of Sir Richard's life was approaching. But the dying man became suddenly unconscious; and as there was some risk in his wife leaving her bed, it was judged better not to disturb her. Lady Boldon was thus quite unprepared to hear that her husband was actually dead; and when she first learned the truth, she was for the time utterly unnerved. Her father soon came to her; and as soon as she saw him, she threw her arms round his neck and burst into hysterical tears. 'They ought to have told me, papa,' she cried—'they should have told me he was in danger. I have not seen him for more than a week; and I feel as if I could not forgive myself for deserting him.'

'Hush, my dear child. You were not at all to blame,' said the Rector, soothing her as well

as he could.

After a time she became calmer, and able to give the necessary orders. Notice of the death was sent to all the neighbouring gentry, and to one person who had a much stronger interest in the event than the country gentlemen of the surrounding district—to Mr Frederick Boldon, of Nicholas Court, E.C., and of Alton Street, S.W. He was Sir Richard's nephew and heir-at-law.

Mr Felix, however, was apprised of his client's death by telegram. Lady Boldon desired that he would come down at once and seal up Sir Richard's writing-desk and other reposi-

tories.

It was impossible for the lawyer to reach Roby Chase until the following day, and Lady Boldon was burning with anxiety, and actually counted the hours till she could see Mr Felix. Had the new will been signed? And if it had,

could it be set aside?

Once or twice the thought occurred to her that perhaps Mr Felix might propose to pretend that no new will had been made—simply say nothing about it. The first time this idea entered her mind, she rejected it as utterly preposterous. The second time she connected with it the singular reticence of the lawyer during their interview, his unwillingness to say clearly what was in his mind, and his mysterious hints that a way of escape from the diffi-culty might be found, even if the new will were actually signed.

On the day succeeding her husband's death, Lady Boldon said to the nurse as soon as she opened her eyes in the morning: 'Shall I be

able to rise to-day?'

'I'm afraid not, my lady.'

'But I must! I wish to see a gentleman who is coming from London on business."

'Perhaps your ladyship could get out of bed, and slip on your dressing-gown, and have him shown in here, then. It might be managed that way, perhaps.'

'I must see him, nurse. Manage it as you think best. But I must be told the moment

he arrives.'

The woman promised that this should be done; and Lady Boldon gave orders that a dogcart should be kept waiting at the railway station in readiness to bring Mr Felix up to the house.

About two o'clock in the afternoon Lady Boldon was told that the gentleman from London had arrived. 'Where is he?' she

'In the drawing-room, my lady.'
'Send him up to me here at once,' said her

ladyship.

She was sitting up in a large arm-chair, dressed in a blue dressing-gown, with her masses of dark hair coiled on her head like a coronet. The door opened, and an old man of commonplace appearance, dressed in rusty black garments, came softly into the room.
'Who are you?' cried Lady Boldon, starting

back in amazement.

The old man bowed respectfully, advanced a step or two, and said in a gentle, deprecatory tone: 'I am here, my lady, to represent Mr Felix. My name is Fane. I am his head-clerk; and I have come to seal up Sir Richard's private repositories, in accordance with

your instructions.

This sentence had been composed beforehand. When Matthew Fane had finished speaking it, he lifted his eyes with a deferential expression to the lady's face; but seeing that she had fallen into a brown-study, his glance changed to one of close, eager scrutiny. The old man's to one of close, eager scrutiny. The old man's face now wore its expression of low craftiness, a craftiness that was ready, at the first alarm, to hide itself under its habitual mask of servility.

Matthew Fane noticed every detail of the lady's features and of her surroundings; he read in her face the signs of indomitable will, of haughty temper, of disappointment, anxiety,

'Tell Mr Felix,' she said, 'that I expected he would have come down himself to-day.— No; tell him that I am sorry he could not come to-day, and I hope he will not fail to be here on Tuesday. You must remember that. The funeral is on Wednesday; and there are several things I want to consult Mr Felix about. Tell him I must really beg him to be here on Tuesday effective mythout fail. Tuesday afternoon without fail.'

Matthew Fane promised that he would deliver

the message.

Lady Boldon gave the necessary directions; and the servant, imagining that Mr Fane must be a solicitor, since he was to have access to all Sir Richard's bureaus, took him to the library, pointed out the various articles of furniture which might be used as receptacles for documents, and went about his business.

Left thus to himself, Fane resolved to im-

prove the situation by instituting a little search on his own account. Before sealing up a drawer, he would open it, make a hurried mental inventory of its contents, and then proceed to lock it and seal a piece of red tape over the lock. 'Not that I expect to find anything of importance,' he muttered to himself, as with nimble fingers he turned over a bundle as with nimble ingers he turned over a buildie of papers. 'My old man isn't such an idiot as to have left the new will here. Not likely.—I think I understand the affair pretty well. The governor is head over ears in love with the widow, and small blame to him. She's the handsomest woman I ever saw, and I rather think I've seen some in my day—a few. But being an old man, compared with her ladyship, and not a millionaire, while she is rich, his only chance of getting her is to do her bidding about the will. He means to do it, but can't quite make up his mind. That's why he has been in a sort of dazed state ever since he heard that the lady was a widow. That's why he shirked coming down here to-day, and sent me in his place. He knows there's nothing of any importance to be done here. He's got the new will safe in London, hidden away some-where; and if the lady will come to terms, he won't produce it; and some calm evening he'll burn it, and come in for the estate and the lady too. That's his game. And the question is—What's my game? Knowing what I know, this should be a fortune to me. The question is-What's my game?'

The answer to this query was not, apparently, very easy to find; for when Mr Fane had reached this point in his cogitations, he threw himself back in his chair, and, abandoning his task, began to speculate on the chance of his being able to turn his knowledge into money. being able to turn his knowledge into money. Should he endeavour to get the new will into his hands, find out the person who would benefit by it, and try to sell it to him? In order to do this, he must wait until Mr Felix had shown that he did not mean to produce it. And by that time, there could hardly be a doubt, Mr Felix would have turned the new will into ashes, if he had not done so

already. Coming to himself with a start, Mr Fane dismissed this train of thought from his mind, and rapidly finished his work. Then, ringing for the footman, he declared that he was ready to go back to London. While the dogcart was being prepared, Fane did justice to a very substantial meal; and when it was ended, he said to the footman who was clearing the table: 'By the way, was it you who witnessed a document for Sir Richard, when Mr Felix was down here a few days ago?'

The man stared at him for a moment before answering, 'No.'
'You didn't write your name as witness on

a paper?'
'Never in my life.'

'One of the servants must have done it. I wonder which of them it was,' said Mr Fane. 'Do you think you could find out for me?' Then, noticing that the man looked curious, and, he fancied, a little suspicious as to the reason of his questioning, Fane hastened to add: 'You see, one of the witnesses has signed

with an initial only, and Mr Felix forgot to ask for the Christian name. I must have it to fill in, in the proper place. Would you mind asking which of the servants signed a paper as witness when Mr Felix was down last?

'What was the name of the servant as did it, sir—the last name, I mean?' asked the foot-

'Dear me!' said Mr Fane, rubbing his nose in pretended perplexity, 'I declare I've for-gotten it, I never doubted that the person who acted as witness would remember all about

th, as it was only a few days ago.'

'My name is Fulton,' said the footman, as if
the information could in some way help Mr Fane's weak memory.

The clerk shook his head; and, after some inward hesitation, pulled a half-crown out of his pocket, and slipped it into the man's hand. Just find out for me which of the servants witnessed a paper for Sir Richard last week,' he said. 'One of them must have done it.'

Fulton left the room, and came back in a few minutes, saying that none of the servants had annues, saying that none of the servants had acted in the capacity of witness for Sir Richard at any time. 'But,' he added, 'the butler said very likely it was Mr Lynd, the curate, that witnessed the paper. He was in Sir Richard's room when Mr Felix came; and most likely Mr Lynd put his name to it before he left.'

'Lynd!' exclaimed Fane, pretending to remember the name as soon as he heard it. 'Of course; that's the name. Mr Lynd is curate

ourse; that's the name. Mr Lynd is curate of the parish, I suppose?'
'Yes, sir. His Christian name's Stephen.'
'Very good. Thank you. That's all I wanted to know.'
And so, having satisfied his curiosity on this important point, Matthew Fane returned to

#### THE THREE CHOIRS FESTIVAL.

This year's musical Festival of the Three Choirs of Gloucester, Worcester, and Hereford is the one hundred and seventieth follower of a modest little performance at Hereford in the year 1724. It really traces its origin to an insignificant private weekly concert, established some years earlier, and conducted by Dr Bisse. After its birth as a Festival proper, and the first of its kind, it rapidly became a noteworthy gathering, moved on one place each year in the circle of the three cities, and acquired a national reputation. Though it has been for a century and a half the chief support of a useful local charity, it is as a musical institution that it is most remarkable, and its history best worth glancing at.

In its early days it was variously known as the 'Music Meeting,' the 'Three Choirs Festival,' or the 'Triennial Celebrity,' and the local newspapers spared to it only a very scanty paragraph. It is curious to read, even in these meagre records, that the concerts consisted of 'capital songs, choruses, and instru-mental pieces;' and that in 1776 Giardini and Fischer—who were engaged to play solo music on the oboe and the hautboy-appeared on the

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platform in bag wigs and wearing swords. Obviously the attire of the performers was much more picturesque then than in this present period of decorous frock coat and subdued though elaborate gown. In 1778 a boy named Harrison was engaged to sing the soprano music; but his beautiful voice broke on the very morning of the day on which the Festival began. He was afterwards known as a tenor. In 1788 George III. attended the Festival at Worcester; and in 1796 Braham, then only twenty-two years of age, sang the leading tenor music. About this time Hereford Cathedral was in such a dilapidated condition, and so dangerous from this and other causes, that it was not considered safe to hold the Festival there; and it was feared that the meeting would have to be abandoned, till it was decided to transfer the performances to one of the city churches. Half a century later, some one spread the rumour that Worcester some one spread the rumour that worcester Cathedral was not safe; and the cry took such hold that the public, in a panic, would not buy the tickets. They were only appeased and reassured when the stewards obtained the certificate of a well-known architect that the building was thoroughly secure.

In 1811 Madame Catalani had a salary of four hundred guineas at Gloucester—about fifty guineas less than Madame Albani has received for the same engagement—and besides giving fifty guineas to the charity, she organised a concert for the release of imprisoned debtors. The performance realised two hundred and sixty pounds, of which she gave one-half to the Infirmary, and the other half to the assistance of the prisoners on the debtors' side of the city jail. Four years later, some smart person in London turned a dishonest penny by circulating and selling spurious tickets, and there was considerable trouble in readjusting the arrangements.

In 1827 the collections-which, it should be explained, are devoted entirely to the fund for the necessitous widows and orphans of the clergy of the three dioceses-reached £1083; but the Duchess of St Albans held one of the collecting plates, and who could refuse a Duchess? The large collections do not necessarily mean that the meeting itself has been profitable, for the stewards have to meet all expenses out of the sale of the tickets; and if there is any deficiency, they themselves must pay the piper as well as the singer. For instance, in 1833 Malibran was engaged, and the Festival was expected to be a great success. So it was, in the musical sense; but while the receipts from the sale of tickets were £3496, the expenditure was £4300. The deficiency of £800 had to be made good by the stewards out of their own pockets. A continuation of these losses over several following Festivals made the office of steward a rather undesirable one, till at length a Guarantee Fund was started to help the managers when in a difficulty. That this was necessary was shown by the very next Festival in 1839, when the deficiency amounted to £1270.

It was obvious that this sort of thing could

of in the choir of the Cathedral. Apparently this did not do either, for though the Festival has been held in the nave ever since, the practice of engaging stars was soon reverted to: thus, in 1848 Jenny Lind was engaged, and there was the greatest disappointment because there was the greatest disappointment because Mr Lumley declined to break a previous contract and to permit her to sing at Worcester. She actually sang at Birmingham while the Festival was proceeding. In 1859 there were some disgraceful disturbances at Worcester arising out of the inability of Mr Sims Reeves to sing. At the concert on the Tuesday evening he did not appear. The stewards were not without intimation of the reason, for they had a letter from him explaining that he had a letter from him explaining that he would not be able to sing, because, while staying at Gloucester a day or two before, the hotel caught fire, and he, in endeavouring to save his wife and child, caught cold. Never-theless, the stewards allowed his name to appear in the programme after three pieces, and did not even communicate to the audience the facts of which the great tenor had made them aware. When the audience found that he did not appear, they raised a disturbance; and Tietjiens appear, they raised a disturbance; and Tietjiens and Giuglini, who were about to sing a duet, had to retire. Next day he sang in 'The Elijah;' but the critics treated him severely, though he was plainly ill. He was again down to sing a ballad at the evening concert; but as he did not appear, the uproar was repeated. One of the stewards went on to the platform, and said that Mr Reeves had quietly walked off, and the stewards could not bring him hack. Hisses and prolonged uproar greeted this back. Hisses and prolonged uproar greeted this announcement; but Madame Clara Novello came forward and at last secured silence. Then instead of singing, she rebuked the audience for their behaviour, declared that the statement of the steward was not accurate, that Mr Reeves was really ill, and had the permission of the conductor to retire. 'I do not like to hear a brother-performer falsely accused, she declared; and intimated that she was asked to sing in Mr Reeves's place. The people, however, continued to be noisy, and made the Festival memorable by their turbulence.

The Worcester Festival was again the cause of a bitter dispute some twenty years ago. It was felt by a very large section of the Cathedral body that the Festival had lost its religious and reverent side, and was becoming a week of show and social enjoyment. It mg a week of show and social enjoyment. It was plainly intimated that this must cease; that the Cathedral must not be made a luncheon-room for the consumption of set meals in the mid-day interval; and that it must not be regarded as an ordinary concert chamber, where behaviour permissible enough in other places, but indecorous in a sacred building, could be tolerated. The character of the performances was also a ground of criticism, and the reformers had the strong support of the late Lord Dudley. After an acrimonious wrangle, in which the citizens of Worcester were so strongly opposed to the action of Lord Dudley that some of them put black flags out whenever he went to the town in state to the not go on; and in 1842 the system was changed. No foreign stars were engaged, and the performances were held in the nave instead restricted. Festival, the reformers had their way. The Festival has, however, gone back to what is almost the old order of things so far as the music is concerned; but the utmost decorum prevails now in the Cathedral, and the seats are so arranged that no one sits with his back to the altar. Latterly, the course of the Festival has been peaceful, and history records nothing outside the bounds of the routine. Although a list of the musical novelties it has produced cannot be given here, it is certainly true that the Festival has been reasonably fruitful in this respect, as well as notable for artistic rendering of established works. The interest of the local and general public in the event has seldom been greater than now, and the success of the meetings rarely more

#### A DAUGHTER OF THE KING.

By BEATRICE DEAKIN.

IN FOUR CHAPTERS .- CHAP. I.

'Well, we couldn't have a prettier place to die in,' said Lieutenant Larry, with a sigh of resignation.

'Prettier place!' echoed Captain Jackson, casting a look of ineffable disgust at his more philosophical friend. 'What the deuce does it matter what kind of a place it is, so long as you've got to die in it?'

'Thou hast no poetry in thy soul; and the love of the beautiful hath no place in thee,' quoth the Lieutenant, a gleam of fun in his gray eyes; for, though realising to the full the utter seriousness and danger of their situation, he could not withstand the opportunity of

teasing his less equable fellow-officer.
'You're a fool, Larry,' was the polite response to this quotation.

'Come, come!' spoke a grave-looking officer, who was lying in a helpless attitude on the floor of the narrow ravine. 'Come, Larry; this is ill-timed jesting; and Jackson, surely quarrel-ling is out of place here.'

'But, Major, we may as well die in a cheerful manner,' argued the irrepressible Larry, turning to the recumbent Major.

'Quite so,' agreed Major Littleton. 'But not

in idle frivolity and jesting.'

The young Lieutenant collapsed in crushed silence on the ground; but Captain Jackson went on in a complaining tone.

'I wish I'd never started on such a fool's errand. For my part, I don't think the Colonel had any right to send us.'
'He had every right,' contradicted the Major

calmly. 'He is not to answer for our lack of sense in attempting impossibilities. Anyway, we are here now; and it is of no use grum-bling. All that is left to consider is, if we can

by any means get out of the scrape.'
'Of course we can't'—moodily. 'We have only managed to escape from that beastly swamp, because we had the mountains to steer for. But to attempt to cross it again would be just walking into it to die. Besides, you can't

remains is to resign yourself to fate; and be ashamed as a soldier to die in childish moaning and complaining. At least, you are no

worse off than the rest of us.'
'Indeed! And isn't he better?' exclaimed Lieutenant Larry in a broad Irish tone, sitting bolt upright at once. 'Isn't he whole and comfortable in body? All the hard work he's done has been growling. Clarke and I have done all the carrying of you every bit of the way. Heartily welcome you are, too, to all I can do for you; but the fact remains for all that.

The soldier in a private's uniform, sitting on the ground by the Major, smiled at this rebuff; and Jackson himself was silent.

Presently, Larry went on, the good-humour returning to the frank boyish face. 'I shan't care—so much—if only we don't get found by those infernal screeching Indians. This wig of mine isn't much to brag by; but it has done very well for me, and I should like to die in Besides, it's much more poetical'-with a defiant glance at Jackson.

Jackson discreetly disregarded both look and challenge, and merely remarked: 'I think I've quite disguised all tracks from the swamp.'

'You couldn't possibly do it, my dear Jackson,' amiably contradicted the Lieutenant, bent on passing time by teasing his already ruffled companion. 'They will find us sharp enough if they happen to come within five miles of us. Why, I'm quite sure they could smell us.—Don't you think so, Major?' glancing up to see how his superior officer was taking

his continued persecuting of the Captain.
But the Major and Clarke were both staring with an expression of the utmost amazement at the entrance of the ravine. Following their eyes, Larry looked there also, and then involuntarily clapped his hand on his six-shooter; for, standing in the small opening made in the tree-growth was a figure and a horse. The next moment, though, his hand dropped away from the weapon, as he recognised that the figure was that of a girl. It was a strange figure this, that the four men were staring at so blankly, and whose owner was so calmly and composedly scrutinising them-strange in its admixture of race characteristics, of savagery and intellect. Manner and bearing were In-dian; feature and colouring, English. The hair, which fell in such masses over her shoulders, was of a bright, sunny brown, having none of the coppery shade belonging to Indian blood; her skin, too, in its rich cream-colouring was purely English. The eyes, large, red-brown, and shaded by long, sombre lashes, held in their dark depths a strange wildness; and from beneath their screen of lashes they were ever-restless, all-observant. The figure was Indianlike in its erect haughtiness and supple grace. On the grave, almost stern, young face the brooding gloom of the savage had settled; the only touch of softness it possessed lay in the droop of the curved lips, whose pathos was in direct contradiction to the rest of the expression. She seemed about eighteen or nineteen get about.'

'As you put the case, that doesn't matter,' to ankle, was confined to her waist by a belt rejoined the Major calmly. 'Then all that of plaited 'mésquite' grass; on her head was

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a broad straw hat ornamented by a spray of crimson leaves.

Lieutenant Larry was the first to regain ower of speech, as might have been expected. He put forth a question alike in English and the blandest of tones: 'Who are you?'

'Who are you?' was the counter-question, also in English.

'Well, I'm Larry Morrison, of Harcourt's division;' somewhat astonished at hearing himself answered in English, though, without think-

ing, he had spoken in that language.
'What is your name?' inquired Captain Jackson in a more imperious tone than that employed by the Lieutenant. 'And where do

'I come from the top of the mountain. What is my name to you? —in an equally uncom-

promising tone.

'Oh, but I told you my name in a second,' remonstrated Larry in a ridiculous tone of reproach; 'and we're all so friendly, too,' he added.

'I am known in this country as Hialulu,'

she said, answering Larry.

'Hialulu?' repeated Larry. 'You're not an Indian girl, then, are you?'-in a half-aggrieved manner.

'No—I don't know. Perhaps.'
'Don't know? Why, of course you must know,' contradicted the Captain.

'Must I?' turning a far less kindly look on him than that bent on the young Lieutenant.

'We don't wish to know any more of your affairs than you may choose to tell us,' interposed the hitherto silent Major Littleton. 'But we should just like to know if you are

'I am not friendly; neither am I hostile'-

calmly.

'Not friendly!' echoed Larry. 'Why not?' 'Because, to be friendly to you, I must needs be treacherous to my father.

'Is your father an Indian, then?'

'What, then? Do tell us what he is-or you are-or something,' said the Captain, with some impatience.

Without looking at him, or taking the least notice, Hialulu answered his question, partly to the Major, partly to Larry. 'I suppose it would do no one harm if I do tell you who I am. I was born in these hills; all my life has been spent here; I am known to the tribes as Hialulu; but my name is Kate

'Martineau-Martineau?' repeated the Major blankly. 'Who was—or is—your father, then?'
'In his own country he was Captain Mar-

tineau of the scarlet Lancers.'
'Of course!' exclaimed Larry. 'Jolly fellows

'Of course: exclaimed Larry. John lettows they are too. Why didn't he stop with them?' Through some injustice, he was expelled the regiment. It was before I was born. I never asked him anything of it; only I have heard the old servant Molly say something of the kind.

Major Littleton, who had been sitting with knitted brows and the general air of a man who was racking his brains, now looked somewhat enlightened. He addressed Jackson with an excited look: 'It's that Martineau of the white men—her race-brothers.

old écarté affair, you bet. I've often heard the old Lancer officers refer to it, and wonder

what became of the Captain.'

'Yes; he came here directly after it!' remarked Hialulu indifferently.—'Now, he is a deadly enemy of all Englishmen. He would put the Indians on your trail in a second if I were to mention your whereabouts; and he would shoot me without a thought, were he to find I had in any way befriended you.'
'But you will befriend us, won't you?' queried

Larry anxiously.
'Why should I? Why should I be treacherous to my father and my people for your sakes?'

'They're not your people,' contradicted the Lieutenant quickly.

'They are my adopted people, whose country has been my country, and who have been kind to me, if ever any one has been kind,' she replied in her low, even tones, leaning more heavily against the motionless mustang. 'What heavily against the motionless mustang. 'What cause do you bring why I should be false to these people to help you?—the people who have been the means of depriving me of all the rights of my birth and sex, of everything, it seems to me, but life.'

She addressed her words to Larry; and the other men were silent, feeling, somehow, that he was far more likely to get on with this

strange girl than they.

In a moment Larry answered; the true character of the young soldier shone for a second through the daily veil of fun and banter. 'The cause I bring is the cause of humanity, the cause that overcomes hatreds of race and creed. And I plead for your help because we are helpless and '-indicating the prostrate Major-'suffering; and because you are a woman -and I feel, a noble one-who would see how unjust it would be to punish us—who never did you harm—for the wrongs others did your father. And we are your people, and not the Indians,' he concluded emphatically.

The girl looked long and steadily at him, her eyes seeming to travel over every line of his face; then they wandered to the pale, weary face of Major Littleton; they noted the pallor on each man's face, and finally came back to the handsome face of the young Lieutenant. She placed her hand on the mustang's back before she spoke: 'I am going. If I come again, I will bring you food.' A quick movement, and horse and rider had vanished.

Up the side of the great, gray mountain the blue coated mustang and et some

went the blue-coated mustang; and at some height above the plains the girl slipped from his back, and leaning against him, stood gazing over the vast, lonely distances.

Savage-reared, and wild in thought and deed, was this girl, who stood looking with eyes of fierce gloom across the plains. The savage's stern creed, which buys revenge at any price, and which knows no forgiveness, had been instilled into her from earliest childhood, and should have shown her no second course than that of riding straight to her father, telling him all, and leaving him to do the rest. But, somehow, the heart of this savage girl had been strangely stirred at the sight of these

She stamped her foot in savage rage that she should hesitate about going to her father at once; and at least a dozen times she placed her hand on the mustang's back, ready to ride to his cave. But each time something drew her back. Into her mind's eye came those handsome white faces; and her soul was filled with a—for her—strange shrinking from the merciless course she meditated.

The girl's character was as great a contradiction as her face. Great good and strong evil were there; and unconsciously she clung to the untaught good that was in her. Now, which should conquer?—the good or the evil, the woman's mercy, or the sayage's mercilessness?

woman's mercy, or the savage's mercilessness?

Bah! That she should need to question it!
Once more she placed her hand on the
mustang's back; the animal quivered to start,
and—ah, but again she stopped. That troublesome face! That refined, courteous, patient,
suffering face of the man on the floor of the
gulch! How could she see it mutilated and
torn by savage men?

To leave them and keep silence would be more cruel than to tell her father, for they would die slowly of starvation. And after struggling through the swamp too! How cruel a fate. No; she could not rest, knowing they were wanting food; she must tell her father immediately, or help them.

Again she stamped her foot in savage rage and disgust; and knitted the dark level brows. 'I can't leave them to die,' she almost moaned. 'They are my brothers, after all. I can speak nothing of my father or the Indian people; and then surely I have a right to give them my life, if so I choose. Yes.' The last word was really an audible resolve to follow the dictates of her own heart. She reflected for a few moments in absolute silence and stillness; then mounted the mustang and rode away.

## THE ORIGIN OF SOME BRITISH REGIMENTS.

The present permanent or standing army of Great Britain dates from the Restoration in 1660. Previously, there was no standing army, properly so called, although Cromwell's army partook of that nature. It is remarkable that domestic troubles and French wars are almost wholly responsible for the growth of the British army. About ten or a dozen regiments were raised at the Restoration; seventeen in consequence of Monmouth's and Argyll's rebellions in 1685; fifteen were raised by William III. to suppress the Irish rebellion and to aid him in his French war; nine were raised for Marlborough in 1702; eight on account of the rebellion of 1715; in 1741, six regiments were raised for the French war; in 1755, eleven more, mostly to serve in America; in 1758, ten; and from 1793 to 1815, seventeen were raised on account of the war with France.

The formation of the British army was begun, so to speak, with a clean board. On the accession of Charles II., Cromwell's army was dishanded; and so anxious was Charles to please the Parliament, that he offered to dishand his own troop of Horse or Life Guards, a body-

guard to which every general was then entitled. This general disarmament was owing to the intense dislike of the people and Parliament to anything in the shape of standing troops, these being regarded as mere tools in the hands of a despotic ruler for working out his own ends. The Commons had received a lesson in this respect during the iron rule of Cromwell, and they did not desire to place similar instruments in the hands of Charles, although obviously Charles had as much reason to distrust the existing army as the Parliament had. The country was thus to be without standing troops of any kind, it being considered that the trained bands or militia would be quite sufficient for any sudden emergency that might arise.

About the end of 1660 the disbandment was completed, with the exception of one regiment. This was General Monk's, now Duke of Albemarle's, regiment of foot, which, out of compliment to him, was to have been disbanded last. Just before this, however, the rising of the Fith Monarchy Men took place. This, along with an alleged previous attempt on the life of the king, showed the imprudence of having no organised military force ready to cope with a sudden emergency of the kind, for the trained-band machinery was found too slow, and the king had to send his own body-guard against the fanatics. The very day before Monk's regiment was to have been disbanded, orders arrived countermanding it. The Parliament now allowed Charles to keep up a certain number of troops, as a Royal Guard, to be paid by himself out of the money allowed for his own support. The number of these troops was not to exceed five thousand.

Monk's regiment being yet undisbanded, was naturally the first to form a part of the new Guard. Monk had previously taken care that all the men should be of his own way of thinking, so that there was no difficulty in this respect. The regiment laid down its arms as soldiers of the Parliament, but immediately took them up again as an 'extraordinary Guard for the king's person.' Monk's foot regiment thus became the first regiment of Guards enrolled, and, indeed, the first of any kind. From the town in which it was quartered before Monk began his famous march to London, it afterwards became known as the Coldstream 'Guard's.

Other regiments of Guards were raised at the same time. A commission was granted to Colonel John Russell to raise a new regiment. This regiment, from the commission being dated a few days previous to the enrolment of Monk's regiment, took precedence. In 1665, another regiment, which had been quartered at Dunkirk, was added to the establishment of Colonel Russell's Foot-guards, and the united regiment became known as the King's or 1st Regiment of Foot-guards, until after the battle of Waterloo, when the Prince Regent conferred on it the title of the 1st or Grenadier Regiment of Foot-

Simultaneously with the establishment of the two regiments of Foot-guards, the troops of Horse-guards of the Duke of York and the Duke of Albemarle were transferred to the

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king's pay—thus forming, along with the king's own troop, three troops of Horse or Life Guards, as they were indifferently called. After various changes, these Horse-guards were, in 1788, finally formed into two regiments, dropping the title of Horse-guards, and assuming that by which they are now known, the 1st and 2d Life-guards.

At the same time that the above troops were transferred to the king's pay, a new regiment of Horse-guards was ordered to be raised. The command was given to the Earl of Oxford. This regiment was known as the Royal Regiment of Horse-guards, and known now as the Horse-guards (Blue). They were first called Oxford's Blues in William III.'s time, to distinguish them from a Dutch regiment, also with a blue uniform, in his pay.

In 1662 a regiment of Foot-guards was raised in Scotland. There was no special reason for the raising of this regiment except that Charles wished to have troops in Scotland in his own pay and on whom he could depend. This was the regiment now known as the Scots Guards. Until the Revolution, Scotland, being only called across the Border on one or two occasions, and were not considered as part of the English

This completes the history of the Guards. At first raised as guards for the king's person, and in his own pay, these regiments formed the nucleus of the British army. They were viewed by the people with suspicion and dislike, but with little reason, at least in Charles's time. That monarch continued to raise troops beyond his limit, but contrived to keep them out of sight by sending them to garrison Tangier.

In 1664 a regiment which had been in Holland for nearly a hundred years was recalled to England and sent to garrison Tangier. When that place was abandoned, it became the 3d Regiment, or the Buffs, as it was familiarly called, from the colour of its facings. There is a tradition that it was raised originally in the time of Elizabeth to serve in the Low Countries, and was recruited chiefly by the citizens of London. It is the only regiment permitted to march with drums beating and colours flying through the streets of the City, although others have claimed that privilege.

In 1678 Charles recalled permanently to England a Scottish regiment which had for centuries been in the service of the kings of France—as far back, according to some authorities, as the twelfth century. It was known as the Scots Guard, and in early times as the Scottish Archers, familiar to readers of Quentin Durvard. Charles made it his Royal Regiment of Foot. Later, it was known as the 1st Royal Regiment. It still retains its old title of Royal Scots. It is supposed to be the oldest regiment in the world, which gained for it the sobriquet of 'Pontius Pilate's Guards.' It was owing to a mutiny in this regiment in 1689 that the first Mutiny Act was passed. The regiment was the only one which refused to serve under William of Orange. It set out on the march for Scotland, but was captured and brought back.

Other two well-known Scottish regiments were raised in 1678 for the purpose of suppressing the Covenanters. One of these regiments, raised by the Earl of Mar, mostly among his retainers, became afterwards known as the 21st, or Scots Fusiliers, although it was not raised originally as fusiliers. It may be mentioned that the duty of fusiliers was to protect the artillery; they were armed with fusils, hence their name. Gunners in those days were artisans and not fighting men.

The other regiment has since become famous in the annals of the British army, although the object for which it was raised was the not very creditable one of hunting down its own countrymen. Three troops of cavalry were raised as a useful auxiliary to the foot regiment. In 1681 other three troops were added. and the whole formed into a regiment of dragoons, under the command of the notorious General Dalziel. The regiment was at first known as the Royal North British Dragoons, but now as the 2d Dragoons, or Scots Greys. It was the first dragoon regiment raised, although only added to the English establishment after the 1st Royal Dragoons were raised; hence, it considered itself well entitled to the motto, although it has a double significance, 'Second to none.' It is the only cavalry regiment permitted to wear grenadier caps. At Ramillies, the Scots Greys, in conjunction with the Royal Irish Dragoons, captured two battalions of a French regiment, and cut another to pieces, In this service the two regiments were distinguished by being allowed to wear grenadier caps. Afterwards, the caps were restricted to the Scots Greys. Another regiment of horse was raised at the same time as the Scots Grevs, under the command of Claverhouse, but was afterwards disbanded.

James II. seized the opportunity occasioned by Monmouth's rebellion in 1685 of increasing the military forces. The object was not so much to crush the rebellion as to increase his own power. Among the new regiments then raised were the 1st, 2d (Queen's Bays), 4th (Royal Irish) Dragoon Guards, the 3d and 4th Hussars, and the 7th Royal Fusiliers. The cavalry regiments were mostly enrolled by the nobility and gentry of the counties, and were at first merely troops of horse. This was the first occasion on which an Irish regiment was raised. Towards the close of his reign, James raised several other Irish regiments, among them a regiment of Foot-guards. Most of these sided with James in the Irish rebellion, and were afterwards disbanded. One of them entered the service of France.

Among the troops which came over with William at the Revolution was an English regiment which had been in his service in Holland; this became the 5th, now Northumberland Fusiliers, familiarly known as the

'Fighting 5th.'
Among the regiments raised by William to cope with the Irish rebellion and to aid him in his French war, were the 6th Dragoons, or Enniskilleners, and the 23d, or Welsh Fusiliers. This last was the first regiment raised in Wales, in consequence of which it assumed the three feathers and the motto 'Ich Dien.'

Two regiments raised in Scotland to contend with the Jacobite rising under Viscount Dundee (formerly Graham of Claverhouse) were the 25th (the King's Own Borderers) and the 26th (the Cameroniaus). The first was raised for the defence of Edinburgh, and it is said that all the men required (eight hundred) were enlisted in two hours. For its services at Killiecrankie, the city of Edinburgh granted it for ever the privilege of beating up the town for recruits without the special permission of the Lord Provost. It was in this regiment that the famous Corporal Trim served in Flanders; his real name was Corporal James Butler.

The raising of the Cameronian regiment illustrates in a curious manner the rapid political changes of these unquiet times. Only ten years had elapsed since the raising of the Scots Greys for service against the Covenanters, and now the Cameronians were raised for service against their late oppressors. This regiment, as its name implies, was mainly recruited from the stricter sect of Covenanters, the followers of Richard Cameron. The regiment to the number of twelve hundred men was enrolled in one day without either money or beat of drum. This enthusiasm was from no love of William, whom in the matter of Church government they considered little better than his predecessor, but from their intense hatred (of James and the Roman Catholic religion; and this opportunity of smiting his adherents was too good to be lost. The regiment must, however, have soon fallen from its original stern principles, for in Douce Davie Deans's day, if we are to believe him, the men could curse, swear, and use profane language as fast as ever Richard Cameron could preach or pray.

The origin of the famous 42d, or Black Watch, is familiar to many. After the rebellion of 1715, the Government, with the view of bringing the Highlanders more into touch with the rest of the people, caused six companies of them to be raised. The command of each company was given to the chief of a clan. Their duties at first were not strictly military, but more those of an armed police, disarming the Highlanders, and preventing depredations on the Lowlands. They executed these duties so much to the satisfaction of the Government, that in 1739 the companies were formed into one regiment and enrolled in the line. The name 'Black Watch,' by which this distinguished regiment has ever since been known, arose from the dark colour of their uniform tartan. How the regiment would have behaved during the rebellion of 1745, it is difficult to conjecture, but fortunately it was abroad at the time.

Most of the other Highland regiments were raised in 1793 and the following year. Two well-known Irish regiments were also raised at this time—the 87th (Royal Irish Fusiliers) and the 88th (Connaught Rangers). The Rangers, from their plundering propensities in the Peninsula, were styled by General Picton 'the greatest blackguards in the army.'

In the year 1800 the importance of having a specially trained corps of riflemen was felt by the military authorities. In that year a corps was accordingly formed. It was at first made

up by picked detachments from other regiments, each retaining its own individuality; but in 1802 it was formed into an independent regiment, taking rank as the 95th. This was the beginning of the well-known Rifle Brigade, whose brilliant services in the Peninsula and the Crimea, in supplying skirmishers and light troops, contributed materially to the success of the British arms.

The Marines were first established in 1664, when a corps was formed to supply trained sailors for the fleet. The merchant navy at that time was not large enough to supply the king's ships, and the impressed men were in general unruly. A certain number of marines were therefore placed in each ship to keep the crew in order. Thus, at first, marines were trained sailors, and not soldiers, although at that time, and both before and after, the fighting in men-of-war was done by soldiers. No special regiment was set apart for this duty, but sometimes one and sometimes another was employed. The Duke of York (afterwards James II.) was in command of a regiment which was for some time employed in this way.

The Royal Artillery owes its origin to the Duke of Marlborough. In 1716, when Mastergeneral of the Ordnance, he established two companies of artillery at Woolwich for the purpose of feeding the independent companies then serving abroad. From this beginning, the establishment of a depôt, has the great organisation of the Royal Artillery sprung. The Royal Horse Artillery only dates from 1793, when two troops were formed.

The origin of the Royal Engineers is closely associated with Gibraltar. In 1772 the fortifications of that stronghold were mainly built by hired labour; but this proving unsatisfactory, a company of artificers, called Military Artificers, was raised in 1786 under military jurisdiction for service at Gibraltar. These men were under Engineer officers, and in 1787 the position of the corps in the army was defined by royal warrant. From this small beginning the corps has grown to its present importance, including in its multifarious duties the practice of almost every service.

#### THE PROFESSOR'S BUTTERFLY.

By H. A. BRYDEN.

Quite the most remarkable feature of an April meeting of the Entomological Society in 188-was the production, by Professor Parchell, F.Z.S., F.L.S., one of the oldest and most enthusiastic members of the Society, of a new and remarkable species of 'Achræa,' hitherto quite unknown to science. The Professor was radiant and suffused with happiness. He had long been an ardent collector in England and Europe; but only recently had he turned his footsteps to the far-off lands south of the equator. It had been the dream of his life. And now, having lately resigned his chair at Cambridge, at the age of sixty, at his first essay in Cape Colony, a region fairly well known to entomologists, he had gratified his heart's desire, and discovered a species.

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The new butterfly, which, it appeared, from a paper read by the Professor, had been found in some numbers, but within a very limited area—a mere speck of country—was shown in a carefully constructed case. There were sixteen specimens; and it was settled that the butter-fly was to be known to science as 'Achræa Parchelli,' thus perpetuating the Professor and his discovery to the ages yet unborn. The one particularity which marked the insect out from among its fellows was very striking. Upon the upper side of the hind-wings, right Upon the upper side of the hind-wings, right in the centre, there appeared a complete triangular space of silver, evenly bordered by circular black markings. This peculiarity, which was shared by male and female alike, was very beautiful and very marked; and the enthusiastic collectors gathered at the Society's meeting were, as the box of specimens was passed from hand to hand, all delighted with the new treasure. As for the Professor himself, and the suprementation of the professor himself, the suprementation of the professor himself, the suprementation of the professor himself. never, except, perhaps, in that supreme moment when he had discovered within his net this new wonder, had he experienced such a glow

of rapture and of triumph.

Amongst the Fellows of the Society met this evening sat Horace Maybold, a good-looking young man of six-and-twenty, who, having some private means, and an unquenchable thirst for the collection of butterflies, spent most of his time in going to and fro upon the earth in search of rare species. Horace had travelled in many lands, and had made a good many discoveries well known to his brethren; and quite recently he had turned his attention to the 'Achreine,' the very family in which Professor Parchell had made his mark. The new butterfly interested him a good deal. Naturally, he at once burned to possess it in his own collection, and, after the meeting broke up, he approached the Professor and sounded him on the subject. In his paper read to the Society, that gentleman had rather vaguely described the habitat of the new species 'in the Eastern Province of Cape Colony, in a small and compact area within fifty miles of the east bank of the Sunday's River.' But it appeared very quickly that the Professor for the present was unwilling to part with any of his specimens—even for an adequate consideration-or to impart the exact locality in which the species was to be found.

Horace had rather reckoned upon this, but he was none the less a little chagrined at the old gentleman's closeness.

'No, my dear sir,' had replied the Professor to his inquiries, 'I can't part with any of my specimens, except to the Natural History Museum, to which I intend to present a pair. As for the precise habitat, I intend—ahem! for the present to reserve that secret to myself. It is a pardonable piece of selfishness-or shall I term it self-preservation?—you, as a collector, must admit. I intend to renew my acquaintance with the spot towards the beginning of next winter-that is the summer of the Cape. When I have collected more specimens, I may publish my secret to the world—hardly

him. There was no compromise in the set of the firm lips, or the blue eyes beaming pleasantly from behind the gold-rimmed spectacles, and so, with a polite sentence or two on his lips, but with some vexation at his heart, Horace Maybold turned away and went down to his club.

During the rest of that summer, Horace was pretty much occupied, yet his memory never let quit its grip of the Professor and his new butterfly. He had upon his writing-table the coloured plate from a scientific magazine, whereon was depicted that rare species; and as he refreshed his memory with it now and again, he determined more than ever to possess himself of specimens of the original. As far as possible he kept a sharp eye on the Professor's movements until the middle of September, when, happening to return to town from a few days' shooting, he ran across the

old gentleman in Piccadilly.

'Well, Professor,' said Horace genially, 'how goes the world with you? I suppose you will be leaving England for the Cape again presently?

'Yes,' returned the old gentleman, who seemed in excellent spirits; 'I expect to be sailing early in October. I want to have a fortnight or more in Cape Town at the Museum there. After that, I propose proceeding to my old hunting-ground of last year.'

'Where you discovered the new "Achræa?", interposed Horace.

'Exactly,' rejoined the old gentleman.

'I quite envy you, Professor,' went on Horace. 'I am in two minds about visiting South Africa myself this winter. The Orange River country hasn't been half ransacked yet, or Kaffraria either, for that matter. I haven't settled my plans; but I may have a turn at one or the other.

Now, Kaffraria lies not very far to the east of the Professor's own collecting-ground, that sacred spot which held his great secret yet inviolate. The old gentleman's face changed perceptibly; a stiffer line or two appeared about his mouth; he looked with some suspicion into Horace's eyes, and said, rather shortly: 'Ah, well! I am told the Orange River is an excellent and untried region. But, entomologically, South Africa upon the whole is poor. My visits there are mainly for health and change.—But I must be getting on; I have much to do. Good-bye, Mr Maybold good-bye!'

The Professor passed on down St James's Street, and Horace sauntered along Piccadilly with a smile upon his face. The old gentleman had imparted something of his movements. Should he follow them up? Yes; he must have that 'Achræa Parchelli,' somehow. He would follow to the Eastern Province in November. It might be a trifle like poaching; but, after all, the world is not a butterfly preserve for the one or two lucky ones. It lies open to every entomologist. And the old man had been so confoundedly close and secret. It would serve him right to discover his sacred treasure,

may publish my secret to the world—hardly before.'

Horace looked keenly at the face of the clean, pink and white old gentleman before respectively.

Horace looked keenly at the face of the clean, pink and white old gentleman before respectively.

High to make plain his mystery.

After watching the weekly passenger list in 'South Africa' for some time, Horace Maybold noted with interest that Professor Parchell had

sailed for Cape Town by a Donald Currie steamer in the first week of October. That fact ascertained, he at once secured a berth in a deck cabin of the Norham Castle for the first week in November. The chase had begun, and already Horace felt a keen and amusing sense of adventure—adventure in little—springing within him.

After Madeira, when all had found their sealegs, and the warm weather and smooth ocean appeared, things became very pleasant. Horace was not a man who quickly became intimate or much attached to people; but, almost insensibly, upon this voyage he found himself developing a strong friendship, almost an intimacy, with two ladies; one, Mrs Stacer, a pleasant, comely, middle-aged woman, perhaps nearer fifty than forty; the other, Miss Vanning, young, good-looking, and extremely attractive. The two ladies, who were connected, if not relations, were travelling to Port Elizabeth to stay with friends in that part of the colony—where, exactly, was never quite made clear. Horace found them refined, well-bred, charming women, having many things in common with him; and the trio in a day or two's time got on swimmingly together.

on swimmingly together.

By the time the line was reached, the vision of Rose Vanning, with her fair, wavy brown hair, good gray eyes, fresh complexion, and open, yet slightly restrained manner, was for ever before the mental ken of Horace Maybold. Here, indeed, he told himself, was the typical English girl he had so often set before his mind; fresh, tallish, full of health, alert, vigorous in mind and body, yet a thorough and a perfect woman. On many a warm tropical evening, as they sat together on deck, while the big ship drove her way through the oil-like ocean, sending shoals of flying-fish scudding to right and left of her, the two chatted together, and day by day their intimacy quickened. It was clear to Horace, and it began, too, to dawn upon Mrs Stacer, that Rose Vanning found a more than ordinary pleasure in his presence. By the time they were within a day of Cape Town, Horace had more than half made up his mind. He had gently opened the trenches with Mrs Stacer, who had met him almost half-way, and had obtained permission to call upon them in London—at a house north of Hyde Park, where they were living. At present, they knew so little of him and his people, that he felt it would be unfair to push matters further. But he had mentioned Mrs Stacer's invitation to Rose Vanning.

Stacer's invitation to Rose Vanning.
'I hope, Miss Vanning,' he said, 'you won't quite have forgotten me when I come to see you—let me see—about next May. It's a very long way off, isn't it? And people and things change so in these times.' He looked a little anxiously at the girl as he spoke; what he saw

reassured him a good deal.

'If you haven't forgotten us, Mr Maybold,' she said, a pretty flush rising as she spoke, 'I'm quite sure we shall remember and be glad to see you. We've had such good times together, and I hope you'll come and see us soon. We shall be home in April at latest, and we shall have, no doubt, heaps of adventures to compare.'

At Cape Town, Horace, after many inquiries, had half settled upon a journey along the Orange River. He had more than one reason for this. Perhaps Rose Vanning's influence had sharpened his moral sense; who knows? At any rate, he had begun to think it was playing it rather low down upon the Professor to follow him up and poach his preserves. He could do the Orange River this season, and wait another year for the 'Achrea Parchelli;' by that time, the old gentleman would probably have had his fill, and would not mind imparting the secret, if properly approached. And so the Orange River was decided upon, and in three or four days he was to start.

Upon the following evening, however, something happened to alter these plans. Half an hour before dinner, as he was sitting on the pleasant stoep (veranda) of the International Hotel, enjoying a cigarette, a man whose face he seemed to know came up to him and instantly claimed acquaintance. 'You remember me, surely, Maybold?' he said. 'I was at Marlborough with you—in the same form for three terms.'

Of course Horace remembered him; and they sat at dinner together and had a long yarn far into the night.

The upshot of this meeting was that nothing would satisfy John Marley—'Johnny,' he was always called—but Horace should go round by sea with him to Port Elizabeth, and stop a few weeks at his farm, some little way up country from that place. When he was tired of that, he could go on by rail from Cradock, and complete his programme on the Orange River.

'If you want butterflies, my boy,' said Johnny in his hearty way, 'you shall have lots at my place—tons of them after the rains; and we'll have some rattling good shooting as well. You can't be always running about after "bugs" you know.'

"bugs," you know.'
So, next day but one, Horace, little loth, was haled by his friend down to the docks again, and thence round to Port Elizabeth by steamer. From Port Elizabeth they proceeded, partly by rail, partly by Cape cart and horses, in a northeasterly direction, until at length, after the best part of a day's journey through some wild and most beautiful scenery, they drove up late in the evening to a long, low, comfortable farmhouse, shaded by a big veranda, where they were met and welcomed by Marley's wife and three sturdy children. After allowing his friend a day's rest, to unpack his kit and get out his gunnery and collecting-boxes, Johnny plunged him into a vortex of sport and hard work. A fortnight had vanished ere Horace could cry off. He had enjoyed it all immensely; but he really must get on with the butterflies, especially if he meant to go north to the Orange River.

Marley pretended to grumble a little at his friend's desertion of buck-shooting for butterfly-collecting; but he quickly placed at his disposal a sharp Hottentot boy, Jacobus by name, who knew every nook and corner of that vast country-side, and, barring a little laziness, natural to Hottentot blood, proved a perfect treasure to the entomologist. The weather was perfection. Some fine showers had fallen, vegetation had

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suddenly started into life, and the flowers were everywhere ablaze. The bush was in its

Amid all this regeneration of nature, butter-flies and insects were extremely abundant. Horace had a great time of it, and day after day added largely to his collection. One morning, flitting about here and there, he noticed a butterfly that seemed new to him. He quickly had a specimen within his net, and, to his intense satisfaction, found it, as he had suspected, a new species. It belonged to the genus 'Eurema'—which contains but few species—and somewhat resembled 'Eurema scheeneia' (Trimen), a handsome dark brown and yellow butterfly, with tailed hind-wings. But Horace's new capture was widely different in this respect: the whole of the under surface of the wings was suffused with a strong roseate pink, which mingled here and there with the brown, sometimes darker, sometimes lighter in its hue.

Here was a thrilling discovery—a discovery which, as Horace laughingly said to himself, would make old Parchell 'sit up' at their Society's meeting next spring. Horace captured eight more specimens—the butterfly was not too plentiful—and then made for home in an ecstasy of delight.

A few days after this memorable event, he set off with Jacobus for a farmhouse thirty miles away, to the owner of which—an English Afrikander—Marley had given him an introduction. As they passed near the kloof where the new butterfly had been discovered, which lay about half-way, Horace off-saddled for an hour, and picked up half-a-dozen more specimens of the new 'Eurema.' These he placed with the utmost care in his collecting-box. At noon they saddled up and rode on again. Towards three o'clock they emerged from the hills upon a shallow, open, grassy valley, girt about by bushy mountain scenery. This small valley was ablaze with flowers, and butterflies were very abundant. Getting Jacobus to lead his horse quietly after him, Horace wandered hither and thither among the grass and flowers, every now and again sweeping up some butterfly that took his fancy. Suddenly, as he opened his net to secure a new capture, he uttered an exclamation of intense surprise. 'By all that's entomological!' he cried, looking up with a comical expression at the stolid and uninterested Hottentot boy, 'I've done it, I've done it! I've hit upon the old Professor's new butterfly!!'

No man could well be more pleased with himself than Horace Maybold at that moment. In ten minutes he had within his box seven or eight more specimens, for the butterfly—the wonderful, the undiscoverable 'Achræa Parchelli'—seemed to be fairly plentiful.

Parchelli'—seemed to be fairly plentiful.
'How far are we off Mr Gunton's place now, Jacobus?' asked Horace.

'Nie, vär, nie, Baas' [Not so far, master], replied the boy in his Dutch patois. 'Bout one mile, I tink. See, dar kom another Baas!'

Horace shaded his eyes and looked. About one hundred and fifty yards off, there appeared above the tall grass a curious figure, remarkable

for a huge white helmet, loose light coat, and pink face and blue spectacles. A green butterfly net was borne upon the figure's shoulder. Horace knew in a moment whose was that quaint figure. He gave a soft whistle to himself. It was the Professor.

The old gentleman came straight on, and, presently, seeing, within fifty yards, strange people before him, walked up. He stood face to face with Horace Maybold, amazed, aghast, and finally yery angry.

and finally very angry.

'Good-morning, Professor,' said that young man. 'I'm afraid I've stumbled by a sheer accident on your hunting-ground. I am staying with an old schoolfellow thirty miles away, and rode in this direction. I had no idea you

were here.'
The Professor was a sight to behold. Red as an enraged turkey-cock, streaming with perspiration—for it was a hot afternoon—almost speechless with indignation, he at last blurted into tongue: 'So, sir, this is what you have been doing; stealing a march upon me; following me up secretly; defrauding me of the prizes of my own labour and research. I could not have believed it of any member of the Society. The thing is more than unhandsome. It is monstrous! an utterly monstrous proceeding!

Horace attempted to explain matters again, It was useless; he might as well have argued with a buffalo bull at that moment.

'Mr Maybold,' retorted the Professor, 'the coincidence of your staying in the very locality in which my discovery was made, coupled with the fact that you endeavoured, at the last meeting of the Entomological Society, to extract from me the habitat of this new species, is quite too impossible, I have nothing more to say—for the present.' And the irate old gentleman passed on.

Horace felt excessively vexed. Yet he had done no wrong. Perhaps, when the old gentleman had come to his senses, he would listen to reason.

Jacobus now led the way to the farmhouse. It lay only a mile away, and they presently rode up towards the stoep. Two ladies were sitting under the shade of the ample thatched veranda—one was painting, the other reading. Horace could scarcely believe his eyes, as he approached. These were his two fellow-passengers of the Norham Castle, Mrs Stacer and Rose Vanning—the latter looking, if possible, more charming than ever. The ladies recognised him in their turn, and rose with a little flutter. Horace jumped from his horse and shook hands with some warmth.

'Who, on earth,' he said, 'could have expected to meet you in these wilds? I am astonished—and delighted,' he added, with a glance at Rose.

Explanations ensued. It seemed that the ladies were the sister and step-daughter of the Professor, who was a widower. They had been engaged by him in a mild conspiracy not to reveal his whereabouts, so fearful was he of his precious butterfly's habitat being made known to the world; and so, all through the voyage, no mention had been made even of his name. It was his particular whim and request; and

here was the mystery at an end. The Professor had moved from the farmhouse in which he had lodged the year before, and had secured quarters in Mr Gunton's roomy, comfortable ranch, where the ladies had joined him.

Horace, who had inwardly chafed at this un-

expected turn, had now to explain his awkward rencontre with the Professor. To his great relief, Mrs Stacer and Rose took it much more philosophically than he could have hoped: indeed, they seemed rather amused than other-

'But,' said Horace with a rueful face, 'the Professor's in a frantic rage with me. don't quite realise that he absolutely discredits my story, and believes I have been playing the spy all along. And upon the top of all this I have a letter to Mr Gunton, and must sleep here somehow for the night. There's no other accommodation within twenty miles. Why, when the Professor comes back and finds me here, he'll go out of his mind !'

Here Mrs Stacer, good woman that she was, volunteered to put matters straight, for the night, at all events. She at once saw Mr Gunton, and explained the *impasse* to him; and Horace was comfortably installed, away from the Professor's room, in the farmer's own quarters.

'Leave my brother to me,' said Mrs Stacer, as she left Horace. 'I daresay matters will come right.

At ten o'clock Mrs Stacer came to the door. Mr Gunton rose and went out as she entered. 'H'sh,' she said with mock-mystery as she addressed Horace. 'I think,' she went on, with a comical little smile, 'the Professor begins to think he has done you an injustice. He is amazed at our knowing you, and we have attacked him all the evening, and he is visibly relenting.

'Mrs Stacer,' said Horace warmly, 'I can't thank you sufficiently. I've had inspiration since I saw you. I, too, have discovered, not far from here, a rather good new butterfly a species hitherto unknown. Can't I make amends, by sharing my discovery with the Professor? I've got specimens here in my box, and

there are plenty in a kloof fifteen miles away.'
'Why, of course,' answered Mrs Stacer. 'It's
the very thing. Your new butterfly will turn
the scale. I'll go and tell my brother you
have a matter of importance to communicate, and wish to make further explanations.-Wait a moment.

In three minutes she returned. 'I think it will be all right,' she whispered. 'Go and see him. Straight through the passage you will find a door open, on the right. I'll wait here.'

Horace went forward and came to the halfopen door. The Professor, who had changed his loose yellow alpaca coat for a black one of the same material, sat by a reading-lamp. He were now his gold-rimmed spectacles, in lieu of the blue 'goggles.' He looked clean, and pink, and comfortable, though a trifle severe-the passion of the afternoon had vanished from his face. Horace spoke the first 'I have again to reiterate, Professor, how vexed I am to have disturbed your collecting-ground. I had not the smallest intention of

It was the pure accident of meeting my old school-friend, Marley, that led me here. order to convince you of my sincere regret, I have here a new butterfly—evidently a scarce and unknown "Eurema"—which I discovered a few days since near here. My discovery is at your service. Here is the butterfly. I trust you will consider it some slight set-off for the vexation I have unwittingly given you.'

At sight of the butterfly, which Horace took from his box, the Professor's eyes gleamed with interest. He took the insect, looked at it very

carefully, then returned it.

'Mr Maybold,' he said, rising and holding out his hand, 'I believe I did you an injustice this afternoon. I lost my temper, and I regret it. I understand, from my sister and daughter, that they are acquainted with you, and that they were fully aware of your original intention to travel to the Orange River. Your offer of the new butterfly, which is, as you observe, a new and rare species, is very handsome, and I cry quits. I trust I may have the pleasure of seeing you to-morrow at breakfast, and accompanying you to the habitat of your very interesting and remarkable discovery.'

Before breakfast next morning, there was a

very pleasant and even tender meeting between Horace Maybold and Rose Vanning; and, when Mrs Stacer joined them, there was a merry laugh over the adventures of yesterday.

After breakfast—they all sat down together, the Professor in his most genial mood—Horace and the old gentleman at once set off for the kloof where the new 'Eurema' was discovered. They returned late in the evening; the Professor had captured a number of specimens, and although fatigued, was triumphantly happy. Horace stayed a week with them after this, with the natural result that at the end of that time he and Rose Vanning were engaged, with the Professor's entire consent.

The new butterfly—which, partly out of compliment to Rose, partly from its own peculiar colouring, was unanimously christened 'Eurema Rose'—was exhibited by Horace and the Professor jointly and with great éclat at an

early meeting of the Entomological Society.

Horace and Rose's marriage is a very happy one. And, as they both laughingly agree—for the old gentleman often reminds them of the fact—they may thank the Professor's butterfly (the famous 'Achræa Parchelli') for the lucky chance that first threw them together.

#### IRON-LINED TUNNELS.

THE latest and most approved practice in the construction of Tunnels, whether for vehicular or railway traffic, presents several features of note and interest, and a succinct resumé of the works recently executed on the new principle, together with some account of the modus operandi, may, in view of the probable growth and extended application of the principle, be not inaptly laid before our readers at the present moment. Tunnelling through soft ground, more especially when much water ground. I had not the smallest intention of is encountered, forms, as our readers are aware, doing it. Indeed, my plans lay farther north. one of the most difficult problems grappled

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with by the engineer, and the task is rendered by no means easier when heavy buildings are situated in the neighbourhood, which any subsidence is liable to crack and otherwise damage. Hitherto, a stone or brick lining has been the mode of tunnel construction, but castiron segments are now coming largely into yogue.

During the construction of the Forth Bridge, our pages contained an account of the sinking of a caisson and the founding of a pier by means of compressed air. Very much the same method is adopted in tunnel construction, with, of course, the difference, that whereas the caisson is sunk vertically, in tunnel construction it is driven forward horizontally. Details necessarily differ considerably; but the principle involved in pier-sinking or tunnel-driving by means of compressed air is identically similar.

In tunnel construction on this system, the air-lock is placed at the entrance, and the excavation is carried on by means of a shield, answering to the caisson in pier-sinking. The shield is simply a cylinder of the same diameter as the tunnel, furnished with doors for the passage of the 'spoil' or excavated material.

as the tunnel, furnished with doors for the passage of the 'spoil' or excavated material. The method of working may be briefly described. Having excavated a length, the shield is pushed forward by means of hydraulic rams attached to it and actuating against the iron lining, already in position; this accomplished, the space vacated by the shield is immediately lined with the cast-iron segments; and after further excavation, the shield again moves forward by exerting the rams against the lining just erected.

The erection of the lining is variously executed. In the larger tunnels, where the segments are heavy, a specially designed arm attached to the shield lifts each into position; but in smaller tunnels, the workmen experience no difficulty in dealing with the segments by hand. The segments are held together by bolts, and the tunnel is practically a huge castiron pipe built up in pieces. The handiness of this mode of construction and the low price of iron, have induced engineers to regard the new system with great favour. Not only in this country has this system been adopted, but also in America in the Hudson Tunnel at New York.

In the City and South London Electric Railway, which is over three miles in length, two huge pipes running side by side are employed, each having an internal diameter of ten feet two inches, and being built up of six segments. This line was opened on November 4, 1890, by the Prince of Wales and the late Duke of Clarence.

In Edinburgh at the present moment the North British Railway Company are driving two tunnels beneath the Mound in connection with their Waverley Station widening, on this principle. Each tunnel has a diameter of eighteen feet and six inches, and is built up of thirteen segments and a keypiece at the crown, the length of the iron lining exceeding a hundred yards in both cases. In Glasgow, the Harbour Tunnel beneath the Clyde has been successfully accomplished on this system; whilst the District

Subway, or new underground railway, is largely built with iron lining, and is rapidly approaching completion.

In this latter undertaking, two tunnels, side by side of each other—one for the 'up,' the other for the 'down' trains—are being built, each having a diameter of eleven feet, and each composed of nine segments and one keypiece in the ring.

At Blackwall, the London County Council are now busily engaged in driving a tunnel twenty-seven feet in diameter beneath the river Thames for vehicular and passenger traffic. In this tunnel, fourteen segments and a keypiece go to the ring, and the type of construction and the method of procedure are in all respects similar to that already described.

In regard to future undertakings, the Water-loo and City Railway—connecting, as its name implies, the important terminus of the London and South-western Railway with the heart of the City of London—now being commenced, will be built on this system and actuated by electricity; whilst the Hampstead and Charing Cross Railway, and the Central London Railway—both designed with iron lining—will, when completed, form additional examples of this class of construction, furnishing the metropolis with much-needed means of subterranean communication.

Into the exact modes of the manufacture of cast-iron segments for tunnel-lining it is beyond the scope of our present article to travel; suffice it, however, to add that so large is the demand for the new lining, that special plant has been designed for its execution, and great progress has been made in its rapid and economical production.

Enough has, however, been said to demonstrate that the lining of tunnels with cast-iron segments has proved itself a great success, and that the future bids fair to see the system still further developed and extended both in this country and elsewhere.

#### YOUTH AND LOVE.

A SONG.

Sing of smiles, and not of tears; Sing of roses, not of rue; Leave these for far-future years; Time is young for me and you.

Spring's blood thrills in every vein; What can we have with decay? Sunshine gilds each drop of rain That would fall upon Love's way.

Life is at its zenith now; We have reached Joy's topmost peak; Wrinkles are for Age's brow, Kisses for Youth's rosy cheek.

Sing of smiles, and not of tears; Sing of roses, not of rue— Sing of faith, and not of fears; Deathless love for me and you!

M. HEDDERWICK BROWNE.

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